

**STATE WATER RESOURCES CONTROL BOARD
UNDERGROUND STORAGE TANK REGULATIONS
TITLE 23, DIVISION 3, CHAPTER 16, CCR
AMENDMENTS FOR IMPLEMENTATION OF SB 989**

**SWRCB RESPONSE TO COMMENTS
15-DAY COMMENTS #3
(Comments submitted between January 9 and January 26, 2001)**

	NAME
1	Chevron
2	Fiberglass Tank Institute
3	Western States Petroleum Association

COMMENTER 1

Secondary Containment Testing

Comment: Chevron appreciates the opportunity to comment on the most recent (January 9, 2001) proposed amendments to the UST regulations. As indicated in my January 8, 2001 letter to you, Chevron is very concerned about the deadline for completing all secondary containment testing. We appreciate that you moved the deadline from January 1, 2002 to January 1, 2003. Although, this new deadline gives tank owners an additional year to accomplish the testing, we still believe that this deadline should at a minimum be extended to December 31, 2003, for the following reasons:

- ❑ Almost every UST facility will be conducting some type of secondary containment testing ranging from only dispenser pans to complete site testing, including double wall tanks, double wall piping, dispenser pans and turbine sumps. Most of this equipment has not been tested since initial installation, and some new testing protocols will be in use. It is reasonable to believe that the first round of testing may not go smoothly.
- ❑ UST owners/operators will be utilizing the same testing contractor and agency limited resources during testing. Increasing the time frame to conduct the initial testing will increase the efficient use of existing resources and will make the 36 month follow up testing cycle easier to manage.
- ❑ The January 1, 2003 deadline requires testing of existing dispenser pans before all facilities are even required to install dispenser pans (December 31, 2003). It would seem more equitable and reasonable for these dates to be the same.
- ❑ The proposed deadlines associated with 2637(a)(1) were not changed when the testing deadline was extended to January 1, 2003. At a minimum, these deadlines should be adjusted and pushed back a year to work with the current testing deadline of January 1, 2003.

B1 - 01

We continue to be concerned that these regulations include ongoing testing of secondary containment related to most double wall tanks and piping. Double wall tanks and piping with electronic monitoring are considered “state of the art” for underground storage systems by industry and most regulatory agencies.

B1 - 02

Response:

B1 – 01: The SWRCB has already extended the deadline for initial secondary containment testing of systems installed prior to January 1, 2001. We believe this additional time is sufficient for industry to work through the potential problems of this testing. Furthermore, industry has known about the requirement for secondary containment testing for over a year given that SB 989 was signed in October 1999.

B1 – 02: The requirement for secondary containment testing was mandated by SB 989.

Result: No changes.

COMMENTS 2

Secondary Containment Systems

Comment: We appreciate the opportunity to comment on the following proposed language, namely “Secondary containment systems where the continuous monitoring automatically monitors both primary and secondary containment, such as systems that are hydrostatically monitored or are under constant vacuum, are exempt from periodic secondary containment testing.”

Our member company experience is that constant vacuum leak detection requires the permanent installation of an electrically operated vacuum pump and automatic vacuum sensing controls to maintain the “constant” vacuum. This approach is environmentally self-defeating in today’s limited electrical energy environment. We recommend deleting “or are under constant vacuum”.

B2 - 01

The Fiberglass Tank & Pipe Institute is a trade association that represents the manufacturers of both tanks and piping used in underground and aboveground storage and handling facilities. In terms of market share, the year 2000 Havill market study shows that some 55% of the underground petroleum tanks in service at retail and commercial fueling facilities were manufactured by our members. In addition, non-metallic underground piping prevails at fueling facilities and our members manufactured the majority of this piping.

Member company experience with vacuum leak detection:

1. Cardinal Fibreglass Industries is an Institute member and manufacturers double-wall fiberglass tanks (FRP). Attached is a page from Cardinal’s brochure showing their “Vacuum Leak Detector” which is listed by Underwriters Laboratories only for application with tanks up to 3,000 gallons in size. Experience shows that the vacuum will degrade and, to maintain

a constant vacuum in the interstitial space, one needs to permanently install an electric vacuum sensor, electric vacuum pump and electric controls to run the pump and regenerate a vacuum in the interstitial space.

2. Both Containment Solutions and Xerxes Corporation are Institute members and manufacture double-wall FRP tanks up to 40,000 gallons in capacity. Often these tanks are held in inventory with a vacuum in the interstice, and the vacuum is used as a final check before shipment.

Experience shows that vacuum will time-degrade in varying degrees depending on the size of the tank (i. e., vacuum degradation is a function of tank size; the larger the tank the more quickly vacuum will degrade). Thus, before shipping, these manufacturers recognize an allowable degradation depending on the storage time and tank size (i. e., when vacuum degradation is excessive, the tank is re-tested by the API and PEI 5-psi pressure and soaping method).

3. Institute members Containment Solutions and Xerxes have third party evaluated testing procedures, utilizing brine filled interstice, that will detect leak rates of 0.1 and 0.05 gallons per hour as required by the EPA and NFPA 329, respectively.
4. Customers often request that tank manufacturers pull a vacuum on the interstitial space before shipping to the installation job site. While experience shows that the vacuum will degrade, the time interval is short and certain AHJ officials accept limited degradation. However, it should be noted that FRP tank manufacturer installation instructions require the tank be properly tested with pressure and soap before installation, regardless of the vacuum level.

Industry experience with pressure and hydrostatic testing:

1. American Petroleum Institute recommended practices address the integrity testing of petroleum storage vessels and employ hydrostatic methods where practical. The main reason water is used in the hydrostatic test is to provide a 1.4 safety factor for this leak test (i. e., water is heavier [specific gravity of 1.0] than petroleum products [specific gravity of approximately 0.7]).
2. Institute members Containment Solutions and Xerxes Corporation recommend employing a brine solution in the interstice to provide an even greater 1.9 safety factor in the leak test (i. e., brine is heavier than water; specific gravity of 1.3). The other advantages of a brine filled interstice as a constant leak monitoring method is its low cost, low evaporation rate, freeze resistance, visual monitoring and it does not require the use of electrically operated leak detection devices.

In summary, we do not recommend that California include “constant vacuum” as a method to continuously monitor secondary containment systems. By including such a method, the state will encourage thousands of UST owners to install electrically operated vacuum pumps and

controls to maintain the vacuum in double-wall tanks. This will promote the unnecessary consumption of electricity, when conservation of both water and electricity is important.

Response:

B2 – 01: The SWRCB has no authority to regulate UST monitoring devices with respect to energy usage.

Result: No changes.

COMMENTS 3

Secondary Containment Testing

Comment: Our comment letter of January 8, 2001 stated our concern with the then-current requirement in Subsection 2637(a) to complete initial testing of secondarily-contained UST systems by January 1, 2002. WSPA thanks you for proposing a one-year extension (until January 1, 2003) of the deadline for conducting initial testing. We appreciate the opportunity to comment on this proposal.

In the Detailed Statement of Reasons for the proposed time extension, reference is made to the following:

1. The actual date that the amendments will become law is April 1, 2001 at the earliest.
2. The difficulty and complexity of recurrent testing.
3. The need to carefully work through numerous issues associated with the initial test.

We concur that these issues – particularly the three taken together – are ample justification for an extension of the compliance date for the initial testing. In theory, the proposed extended date allows at least eighteen months to perform initial testing. However, although the extra year is directionally very helpful, we continue to be concerned with the logistics of conducting initial testing at all affected sites by the newly-proposed January 1, 2003 deadline.

WSPA-member companies tend to own large numbers of RGOs – from several hundred to over one thousand. Thus, each of these companies would have to conduct initial tests, at as many as five sites, each and every business day through the end of December 2002. This would be a significant challenge; the difficulties are these:

- Initial testing will be inherently more problematic than the recurring testing. For example, as noted in statement of reasons, there are various issues (e.g., the development of test methodologies and procedures) which need to be resolved before testing can actually begin.
- Testing of under-dispenser containment/control systems is a brand-new requirement involving equipment not previously subject to testing requirements.

- All owner/operators, including WSPA-member companies, will be competing for the same limited pool of outside resources (e.g., testing contractors, local-agencies, etc.).
- UST testing requirements will place significant additional demands on contractors, and it will take some time before these demands can be met. Many of the contractors, which RGO owner/operators would use for the additional testing of UST systems, also work on the vapor recovery systems – an area which has required a major recent increase in level of attention¹. Other contractors have generally scaled-back their operations since the completion of the 1998 UST upgrades. Thus, we believe that virtually all contractors will need some time to staff-up in order to accommodate new UST testing requirements.

In view of these considerations, we believe that it would be appropriate to make the timing requirements for initial testing approximately the same as the requirements for recurring testing – that is, a three-year cycle. Thus, a most reasonable deadline for conducting initial testing would be January 1, 2004. We suggest this deadline because it would make for a much more manageable process while still providing environmental protection.

The deadline for installing under-dispenser containment/spill control, at sites which lack containment/control, is December 31, 2003. However, sites which already have containment/control are currently offering a level of protection to the subsurface environment regardless of whether or not they are tested. Protection would not be lost by extending the deadline for initial testing to January 2004.

In order to ensure that the initial testing provides maximum environmental protection under our proposed "three-year" time-line, we would further suggest that an intermediate deadline (perhaps January 1, 2003) be set, and that all sites within 1000 feet of a public drinking water well be tested by that intermediate deadline. Owner/operators might be asked to file a testing plan with both the state and local agencies to demonstrate that they will be testing these sites first.

WSPA is seeking a manageable process for testing – particularly for the initial testing. Clearly, a more practical schedule is essential in this regard. We are also very interested in continuing to work the State Board to address the various issues which must be resolved before testing can commence.

Response:

B3 – 01: Same comment as B1 – 01.

Result: No changes.

B3 - 01